

ATC 2023 DETAILED SCHEDULE (Tentative)

Time: 08h00 – 17h00, October 19-20, 2023

Place: Royal Lotus Hotel Danang, 120A Nguyễn Văn Thoại, Bắc Mỹ Phú, Ngũ Hành Sơn, Đà Nẵng 550000

Session 1: SIGNAL PROCESSING (1)

Room: Lotus 2

Thursday 19th Oct 2023, 10:20 – 12:00

Chair: Prof. Do Trong Hop (University of Information Technology, Ho Chi Minh City & Vietnam National University, Ho Chi Minh City, Vietnam)

10:20	<i>Bussgang Based-Belief Propagation Detection for Large-Scale MIMO Systems with One-Bit ADCs</i>	Duc Hoang (Posts and Telecommunications Institute of Technologies, Vietnam); Thang Le Nhat (Post and Telecommunications Institute Technologies, Vietnam); Hung Dang (Posts and Telecommunications Institute of Technology, Vietnam); Hieu T. Nguyen (University in Southeast Norway, Norway)
10:40	<i>Joint Time and Frequency Synchronization for OFDM Systems over Underwater Acoustic Channels</i>	Quoc Khuong Nguyen (HUST, Vietnam); Du Ngoc Han , Minh Luu and Huy Van Nguyen (Hanoi University of Science and Technology, Vietnam); Nguyen Van Duc (HUST, Vietnam)
11:00	<i>Smartphone Based BP Level Monitoring System Using DNN Model</i>	Mahmuda Mahmuda (Independent University Bangladesh); Barkatullah Barkatullah (Independent University Bangladesh, Bangladesh); Md. Rezwatul Haque (Khulna University of Engineering & Technology, Bangladesh); Abdullah Al Noman (Lamar University, USA); Emranul Haque (Independent University, Bangladesh (IUB), Bangladesh); Feroz Ahmed (Independent University, Bangladesh)
11:20	<i>Signal Quality Indices Based on Gain of</i>	Ta Viet Tai (VNUHCM-University of Science, Vietnam); Tan Ma Pham

	<i>Amplitude Difference for Wearable ECG Signals</i>	Nhut (University of Science VNU-HCM, Vietnam); Nguyen Minh Tri (VNUHCM-University of Science, Vietnam); Nguyen Viet Ha and Tran Thi Thao Nguyen (University of Science, VNU-HCM, Vietnam)
11:40	<i>Leukemia Classification Using Principal Component Analysis and Ensemble Learning on Gene Expression Data</i>	Hoang Quang Huy , Linh Nguyen Phuong , Do Tien Dat , Vu Anh Tran and Viet Dung Nguyen (Hanoi University of Science and Technology, Vietnam); Nguyen Anh (Hanoi University of Technology, Vietnam); Trung Thanh Nguyen (108 Military Central Hospital & Hanoi University of Science and Technology, Vietnam)

Session 2: Communications (1)

Room: Lotus 3

Thursday 19th Oct 2023, 10:20 – 12:00

Chair: Prof. Nguyen Tan Hung (The University of Da Nang, Vietnam)

10:20	<i>An Adaptive Channel Selection Scheme for Anti-Jamming Radio Communications</i>	Binh Nguyen (Viettel Research & Development Institute, Vietnam); Nguyen Xuan Quyen (Hanoi University of Science and Technology, Vietnam); Hieu Dang Le (Viettel High Technology Industries Corporation, Vietnam); Nguyen Trung Hung (Viettel Institute of Research & Development, Vietnam); Van Long Do , Phan Khanh Ha Nguyen and Tung Dang (Viettel High Technology Industries Corporation, Vietnam)
10:40	<i>One Indel or One-Deletion and One-Insertion Error-Correcting Code</i>	Thi-Huong Khuat and Sunghwan Kim (University of Ulsan, Korea (South))

11:00	<i>Receiver Maximum Eigenmode Beamforming-Based Null-Space Expansion for Multiuser Massive MIMO</i>	Yuki Sasaki and Kazuki Maruta (Tokyo University of Science, Japan)
11:20	<i>Multiuser Scheduling to Improve Iterative Interference Replica Subtraction with Partial Zeroization for Massive MIMO Systems</i>	Takuto Suzuki (Tokyo University of Science, Japan); Salah Berra (COPELABS, Universidade Lusófona, 1749-024 Lisbon, Portugal); Kazuki Maruta (Tokyo University of Science, Japan); Osamu Muta (Kyushu University, Japan)
11:40	<i>RF Energy Harvesting and Security Offloading Protocol for MEC-Enabled NOMA Networks with Passive Eavesdropper</i>	Truong Van Truong , Dac-Binh Ha and Thong Vo (Duy Tan University, Vietnam)

Session 3: Integrated Circuit

Room: Lotus 4

Thursday 19th Oct 2023, 10:20 – 12:00

Chair: Prof. Le Duc Hung (University of Science, VNU-HCM, Vietnam), Prof. Pham Xuan Thanh (Hanoi University of Industry, Vietnam)

10:20	<i>Design Method for a Passive RFID Tag on a Plastic Substrate at 900 MHz</i>	Thi-Hong-Le Dam (IMEP-LaHC - University Grenoble Alpes - Grenoble INP, France); Pierrick Plantevin (Jet Metal Technologies, France); Nicolas Corrao and Tan Phu Vuong (IMEP-LaHC - University Grenoble Alpes - Grenoble INP, France)
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10:40	<i>Design of a Configurable Low-Noise 1-Channel Analog Front-End for EEG Signal Recording on 180nm CMOS Process</i>	Duc-Hung Le (University of Science, VNU-HCM, Vietnam); Au Hai Huynh (Sungkyunkwan, Korea (South)); Cong-Kha Pham (University of Electro-Communications (UEC), Japan); Hung The Pham (University of Science, VNU-HCM, Vietnam)
11:00	<i>A 1.8-GΩ Input Impedance 45-dB Ripple Reduction Factor Chopper Amplifier for Biomedical Recording</i>	Xuan Phuong Tran , Xuan Thanh Pham and Thuc Kieu-Xuan (Hanoi University of Industry, Vietnam); Duy Phong Pham (Faculty of Electronics and Telecommunications, Electric Power University, Vietnam); Cuong Nguyen (EPU University, Vietnam); Kha Manh Hoang (Hanoi University of Industry, Vietnam)
11:20	<i>FPGA-Based Human Detection System Using HOG-SVM Algorithm</i>	The-Anh Nguyen (VNU Information Technology Institute, Vietnam); Tran Thi Thuy Quynh (VNU University of Engineering and Technology, Vietnam); Duy-Hieu Bui (Vietnam National University, Hanoi, Vietnam); Xuan-Tu Tran (Vietnam National University, Hanoi, Vietnam)
11:40	<i>Novel PUF-Based Authentication Protocol for IoT Devices with Secure Boot and Fuzzy Matching</i>	Hoang-Long Pham (VNU Information Technology Institute, Vietnam); Tran Thi Thuy Quynh (VNU University of Engineering and Technology, Vietnam); Duy-Hieu Bui (Vietnam National University, Hanoi, Vietnam); Xuan-Tu Tran (Vietnam National University, Hanoi, Vietnam)

Session 4: Signal Processing (2)

Room: Lotus 1

Thursday 19th Oct 2023, 13:30 – 15:10

Chair: Prof. Nguyen Quoc Khuong (HUST, Vietnam)

13:30	<i>Developing an OCR Model for Extracting Information from Invoices with Korean Language</i>	Minh DinhBao (University of Engineering and Technology, Vietnam); Xiem Hoang (VNU-UET, Vietnam); Phu TranQuang (University of Engineering and Technology, Vietnam); Huu-Tien Vu (Post and Telecommunications Institute of Technology, Vietnam)
13:50	<i>Translate Han-Nom to Vietnamese Using Neural Machine Translation Methods</i>	Chau Tan (University of Information Technology VNU-HCM, Vietnam); Tri Minh Nguyen (University of Information Technology, Vietnam); Vu Duc Ngo (University of Information Technology, Ho Chi Minh VNU, Vietnam); Anh Duc Tran Nguyen (University of Information Technology, Vietnam); Trong-Hop Do (University of Information Technology, Ho Chi Minh City & Vietnam National University, Ho Chi Minh City, Vietnam); Binh Thanh Nguyen (University of Information Technology, Vietnam)
14:10	<i>Implementation of OCR System on Extracting Information from Vietnamese Book Cover Images</i>	Tham Nguyen Thi (Soongsil University, Korea (South)); Trong-Hop Do (University of Information Technology, Ho Chi Minh City & Vietnam National University, Ho Chi Minh City, Vietnam); Myungsik Yoo (Soongsil University, Korea (South))
14:30	<i>A Scalable Hate Speech Detection System for Vietnamese Social Media Using Real-Time Big Data Processing and Distributed Deep Learning</i>	Trong-Hop Do (University of Information Technology, Ho Chi Minh City & Vietnam National University, Ho Chi Minh City, Vietnam)
14:50	<i>Face Mask Detection Using Video Streaming Analytics and Deep Learning for Healthcare Management System</i>	Qui Nguyen (UIT, Vietnam); Trong-Hop Do (University of Information Technology, Ho Chi Minh City & Vietnam National University, Ho Chi Minh City, Vietnam)

Session 5: Communications (2)

Room: Lotus 2

Thursday 19th Oct 2023, 13:30 – 15:10

Chair: Prof. Ha Dac Binh (DTU)

13:30	<i>Interference Suppression Performance of CMA Using Time-Domain Inter-Symbol Spreading in Time-Varying Channel Environment</i>	Haruya Ikeda and Kazuki Maruta (Tokyo University of Science, Japan); Daisuke Hisano (Osaka University, Japan); Yu Nakayama (Tokyo University of Agriculture and Technology, Japan)
13:50	<i>A Doppler Compensation Method for MIMO-OFDM Systems on Fading Channels</i>	Nguyen Thi Hoai Linh (Ha Noi University of Science and Technology, Vietnam); Quoc Khuong Nguyen and Nguyen Van Duc (HUST, Vietnam)
14:10	<i>Imaging Parameter Optimization for Nonlinear Crosstalk Cancellation in Optical Camera Communication</i>	Tokio Ikuta and Kazuki Maruta (Tokyo University of Science, Japan); Daisuke Hisano (Osaka University, Japan); Yu Nakayama (Tokyo University of Agriculture and Technology, Japan)
14:30	<i>Spectrally Efficient Frequency Division Multiplexing with QRM-MLD for Rician Fading Channel</i>	Kosuke Tamura (Chiba University, Japan); Shun Kojima (The University of Tokyo, Japan); Kazuki Komatsu (Toyohashi University of Technology, Japan); Chang-Jun Ahn (Chiba University, Japan)
14:50	<i>Adaptive Modulation and Coding for Uplink Massive MIMO with Semi-Blind Interference Suppression Under Multicell Environment</i>	Hiroki Ueno , Kosuke Tamura , Hiroki Nakano and Riku Takemoto (Chiba University, Japan); Kazuki Maruta (Tokyo University of Science, Japan); Chang-Jun Ahn (Chiba University, Japan)

Session 6: Electronics (1)

Room: Lotus 3

Thursday 19th Oct 2023, 13:30 – 15:10

Chair: Prof. Fabien Ferrero (Université Cote d'Azur, CNRS, LEAT & CREMANT, France)

13:30	<i>Seizure Classification Based on EEG Signal Analysis and CNN-Transformers Model</i>	Duc-Phu Do and Duc-Hung Le (University of Science, VNU-HCM, Vietnam)
13:50	<i>Bearing Fault Classification Using Spectral Portrait of Motor Current Signals and Machine Learning</i>	Hai Dang Huu (Academy of Military Science and Technology, Vietnam); Thang Bui Quy (Le Quy Don Technical University, Vietnam); Ngoc-My Bui (AMST, Vietnam); Viet Phan Van (Academy of Military Science and Technology, Vietnam); Thuy Dao Thi (Naval Technical Institute, Vietnam); Van-Phuc Hoang (Le Quy Don Technical University, Vietnam)
14:10	<i>Convolutional Neural Network on Microcontroller for People Counting Using UWB Radar</i>	Tuan Kiet Tran Mach , Hong Ha Thi Vu and Van Su Luong (Phenikaa University, Vietnam); Manh-Hung Ha (Vietnam National University, Vietnam); Minhhuy Le (Phenikaa University, Vietnam)
14:30	<i>A Dynamic Analysis and Realization of Diodontiform Fish Robot</i>	Van Anh Pham (Pham Van Dong University, Vietnam); Quan Tuong Vo (Ho Chi Minh City, University of Technology, Ho Chi Minh City, Viet Nam, Vietnam); Thanh Tung Tran , Dao Duc , Trung Kien Bui , Vinh Phoi Nguyen and Quan Nguyen (Pham Van Dong University, Vietnam)
14:50	<i>Design and Implementation of Self Error Detection</i>	Van Vo , Cuong Pham and Nguyen Binh (Viettel High Technology Industries)

	<i>and Rescue Boot Mechanism in Boot Process on FPGA in 5G Radio Unit</i>	Corporation, Vietnam); Hung Nguyen (Danang University of Science & Technology, Vietnam); Phan Quyet (Viettel High Technology Industries Corporation, Vietnam); Hieu Tran (Viettel High Technology Industries Corporation, Viettel Group, Vietnam)
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Session 7: Network (1)

Room: Lotus 4

Thursday 19th Oct 2023, 13:30 – 15:10

Chair: Prof. Apurba Adhikary (Kyung Hee University, South Korea)

13:30	<i>IncWAD: An Incremental Learning Approach for Web Attack Detection Using MLOps</i>	Hung Le Phi , Khang Xuan Vu and Quyen Huu Nguyen (University of Information Technology - VNUHCM, Vietnam); Nghie Hoang Khoa and Phan The Duy (University of Information Technology, VNU-HCM, Vietnam); Van-Hau Pham (University of Information Technology, Vietnam)
13:50	<i>Performance Analysis of Multipath TCP over FSO/mmWave Vehicular Networks</i>	Ngoc Vu (Hanoi University of Science and Technology, Vietnam); Hoang D. Le (University of Aizu, Japan); Khanh D. Dang and Chuyen T. Nguyen (Hanoi University of Science and Technology, Vietnam); Anh T. Pham (The University of Aizu, Japan)
14:10	<i>TrustFedHealth: Federated Learning with Homomorphic Encryption and Blockchain for Heart Disease Prediction in the Smart Healthcare</i>	Hai Dang Bui Tan , Luan Phan Huu and Thanh Ngan Vuong Dinh (VNUHCM - University of Information Technology, Vietnam); Nghia Trong To (University of Information Technology - VNUHCM, Vietnam); Phan The Duy (University of

		Information Technology, VNU-HCM, Vietnam); Van-Hau Pham (University of Information Technology, Vietnam)
14:30	<i>An Improvement of Multicast Probing Route Design for Locating Deteriorated Links</i>	Nguyen Minh Tri (VNUHCM-University of Science, Vietnam); Masahiro Shibata and Masato Tsuru (Kyushu Institute of Technology, Japan)
14:50	<i>Centralized Network Model Improvement System Integrated into UAV Swarm</i>	Loc Duy Nguyen and Bach Van Tran (Hanoi University of Science and Technology, Vietnam); Phong Dao (Posts and Telecommunications Institute of Technology, Vietnam); Dinh Tuan Tran and J H Lee (Ritsumeikan University, Japan); Anh Quang Nguyen (Hanoi University of Science and Technology, Vietnam)

Session 8: Antenna and Propagation (1)

Room: Lotus 2

Thursday 19th Oct 2023, 15:30 – 17:00

Chair: Prof. Nguyen Quoc Dinh (LQDTU)

15:50	<i>Design of Dual-Band Dual-Polarized Filtering Patch Antenna Using T-Shaped Feeds</i>	Hai Dang Le , Truong Le-Huu , Son Xuat Ta , Nguyen Khac Kiem and Chien Ngoc Dao (Hanoi University of Science and Technology, Vietnam)
16:10	<i>Differential-Fed Dual-Polarized Dual-Band Stacked Patch Antenna Using Multi-Resonances</i>	Tran Hien Bui (Hanoi University of Science and Technology, Vietnam); The-Anh Le-Xuan (Hanoi University of Science and Technology, Vietnam); Son Xuat Ta , Nguyen Khac Kiem and Chien Ngoc Dao (Hanoi University of Science and Technology,

		Vietnam); Nghia Nguyen-Trong (University of Adelaide, Australia)
16:30	<i>Beamwidth and Bandwidth Enhancements of Differential-Fed Dual-Polarized Patch Antenna Loaded with Parasitics Monopole</i>	Thanh Tung Phung , Son Xuat Ta , Hien Thi Ngoc Doan and Nguyen Khac Kiem (Hanoi University of Science and Technology, Vietnam); Nghia Nguyen-Trong (University of Adelaide, Australia)
16:50	<i>Compact Circularly Polarized Metasurface Antennas for RFID Readers</i>	Duc-Nguyen Tran Viet (Le Quy Don Technical University, Vietnam); Thao Nhi Thi Hoang (Phenikaa University, Vietnam); Nguyen Quoc Dinh (Le Quy Don Technical University, Vietnam); Hung Huy Tran (Phenikaa University, Vietnam)

Session 9: Microwave (1)

Room: Lotus 3

Thursday 19th Oct 2023, 15:30 – 17:00

Chair: Prof. Le Minh Thuy (School of Electrical & Electronic Engineering, Hanoi University of Science and Technology, Vietnam)

15:30	<i>A Comparative Study on Additive Manufacturing Technologies for Waveguide Filters</i>	Bastien Peres and Pierre Lemaitre-Augier (Grenoble INP, France); Fabien Schwartz (AML Microtechnique Lorraine, France); Tan-Phu Vuong (Grenoble INP, France)
15:50	<i>A Compact, Low-Loss and High Passband Ratio Substrate Integrated Waveguide Triplexer Using Complementary Split Ring Resonators</i>	Dai Xuan Loi (Military Institute of Science and Technology & Hightech Telecommunication Center, Vietnam); Luong Duy Manh and Ta Chi Hieu (Le Quy Don Technical University, Vietnam); Ha Le Vu (Institute of Electronics Hanoi,

		Vietnam)
16:10	<i>Ultra-Wideband Impulse Radar Classification of Materials Using a Convolutional Neural Network</i>	Minhhuy Le , Khai Nguyen Van , Tuan Kiet Tran Mach , Van Su Luong and Hong Ha Thi Vu (Phenikaa University, Vietnam)
16:30	<i>Microwave Substrate Integrated Waveguide Power Amplifier Using Complementary Split Ring Resonators</i>	Huong Thi Thu Tran and Luong Duy Manh (Le Quy Don Technical University, Vietnam)

Session 10: Communications (3) Room: Lotus 4 Thursday 19th Oct 2023, 15:30 – 17:00 Chair: Prof. Ho Dac Tu (The Arctic University of Norway - UiT & Electrical Engineering, Norway)		
15:30	<i>Low-Computation DOA Estimation Using Virtual Antenna in 2D MIMO Systems</i>	Riku Takemoto , Kosuke Tamura , Hiroki Ueno , Hiroki Nakano , He He and Chang-Jun Ahn (Chiba University, Japan)
15:50	<i>Each Layer Adaptation for Throughput Enhancement of LACO-OFDM</i>	Hiroki Nakano , Kosuke Tamura , Hiroki Ueno , Riku Takemoto and Chang-Jun Ahn (Chiba University, Japan)
16:10	<i>An Accurate and Wide-Range AFC for Modified</i>	Toshiharu Kojima and Koki Iwabuchi (The University of Electro-Communications,

	<i>Walsh-Hadamard Code Division Multiplexing</i>	Japan)
16:30	<i>Energy Harvesting Overlay Networks: Performance Evaluation</i>	Van Khuong Ho (Ho Chi Minh City University of Technology, Vietnam)

Session 11: Antenna and Propagation (2)

Room: Lotus 3

Friday 20th Oct 2023, 09:00– 10:00

Chair: Prof. Le Minh Thuy (School of Electrical & Electronic Engineering, Hanoi University of Science and Technology, Vietnam)

09:00	<i>Analysis of Improved Structures Impact on Features of Antipodal Vivaldi Antenna</i>	Manh-Tien Bui , Minh-Huy Nguyen and Thanh-Tung Le-Nguyen (Ho Chi Minh City University of Technology, Vietnam); Vinh Pham-Xuan (Dassault Systèmes Deutschland GmbH, Germany); Ha Hoang (Ho Chi Minh City University of Technology, Vietnam)
09:20	<i>Wideband Metasurface-Based MIMO Antenna for Sub-6 GHz 5G Applications</i>	Thao Nhi Thi Hoang (Phenikaa University, Vietnam); Duc-Nguyen Tran Viet (Le Quy Don Technical University, Vietnam); Hung Huy Tran (Phenikaa University, Vietnam)
09:40	<i>A Numerical Study of Various Wavefront Shaping Schemes in Disordered Medium</i>	Thi Phuong Thao Nguyen (Hanoi University of Science and Technology, Vietnam); Minh Thuy Le (School of Electrical & Electronic Engineering, Hanoi University of Science and Technology, Vietnam)

Session 12: Microwave (2)

Room: Lotus 4

Friday 20th Oct 2023, 09:00 – 10:00

Chair: Prof. Bastien Peres (Grenoble INP, France)

09:00	<i>A Wide Measured Range of Underground Soil Moisture Sensor Based on Resonance Frequency Method for Precision Agriculture</i>	Phuong Thao Dao , Thu Giang Do and Thi Phuong Thao Nguyen (Hanoi University of Science and Technology, Vietnam); Minh Thuy Le (School of Electrical & Electronic Engineering, Hanoi University of Science and Technology, Vietnam)
09:20	<i>Integrated Workflow for Radiated Emission Simulation in Radio Frequency Board</i>	Thi Anh Vu , Do Toan and Duc Nhat Nguyen (Viettel High Technology Industries Corporation, Vietnam); Nhuong Quang Tran (Viettel High Technology Industries Corporation (VHT), Vietnam); Hoang Truyen (Viettel High Technology Industries Corporation, Vietnam); Minh Thuy Le (School of Electrical & Electronic Engineering, Hanoi University of Science and Technology, Vietnam)
09:40	<i>On the Design of A Reflective RIS for C-Band UAVs Beam-Steering Applications</i>	Manh Hai Tao (Hanoi University of Science and Technology (HUST), Hanoi & Viettel High Technology Industries Coporation, Viettel Group, Hanoi, Vietnam); Binh Nguyen (Viettel Research & Development Institute, Vietnam); Phong Nguyen Duy (Viettel HighTechnology Industries Corporation, Vietnam); Tien Manh Nguyen (Viettel High Technology Industries Corporation, Vietnam); Ta Kim Hue and Nguyen Xuan Quyen (Hanoi University of Science and Technology, Vietnam)

Session 13: Network (2) Room: Lotus 2

Friday 20th Oct 2023, 10:20 – 12:00

Chair: Prof. Girum Fitihamlak Ejigu (Kyung Hee University, South Korea)

10:20	<i>Secrecy Performance Analysis of Space-To-Ground Optical Satellite Communications</i>	Thang Nguyen (Posts and Telecommunications Institute of Technology, Vietnam); Thanh Pham (Shizuoka University, Japan); Anh T. Pham (The University of Aizu, Japan); Ngoc Dang (Posts and Telecommunications Institute of Technology, Vietnam)
10:40	<i>Development of Parking System for Smart Cities Using LoRaWAN, Blockchain, and Deep Learning</i>	Thuat Nguyen-Khanh , Tri Le-Dinh and Hung Le-Huy (University of Information Technology - VNUHCM, Vietnam)
11:00	<i>Multi-Still: A Lightweight Multi-Modal Cross Attention Knowledge Distillation Method for the Real-Time Emotion Recognition Service in Edge-To-Cloud Continuum</i>	Hyeon Ki Jo (ICNS Lab & Kyung Hee University, Korea (South)); Yuri Seo , Choong Seon Hong and Eui-Nam Huh (Kyung Hee University, Korea (South))
11:20	<i>Effectiveness of Model and Data Scale Contrastive Learning in Non-IID Federated Learning</i>	Girum Fitihamlak Ejigu , Ye Lin Tun , Apurba Adhikary , Sun Moo Kang and Choong Seon Hong (Kyung Hee University, Korea (South))
11:40	<i>Federated Learning with Diffusion Models for Privacy-Sensitive Vision Tasks</i>	Ye Lin Tun , Chu Myaet Thwal , Yoon Ji Su , Sun Moo Kang , Chaoning Zhang and Choong Seon Hong (Kyung Hee University, Korea (South))

Session 14: SIGNAL PROCESSING (3)

Room: Lotus 3

Friday 20th Oct 2023, 10:20 – 12:00

Chair: Prof. Norhashimah Mohd Saad (Universiti Teknikal Malaysia Melaka, Malaysia)

10:20	<i>Face Recognition System for Unconstrained Condition</i>	Viet-Anh Dao , Hoang-Anh The Nguyen , Dang-Ha Nguyen , Viet-Bac Nguyen and Thom Thi Tran (Vietnam-Korea Institute of Science and Technology, Vietnam)
10:40	<i>Real-Time Detection and Parameter Estimation of UAV/Drone Signals Using Adaptive Thresholds</i>	Binh Nguyen (Viettel Research & Development Institute, Vietnam); Manh Linh Nguyen (Viettel High-Technology Industries Corporation, Vietnam); Minh Tung Duong , Duc Phu Phung and Van Long Do (Viettel High Technology Industries Corporation, Vietnam)
11:00	<i>A Hybrid Features-Based Target Detection Scheme for Maritime Radar</i>	Thang Bui Quy , Minh Thien Hoang , Hung Tran Viet and Kim-Phuong Phung (Le Quy Don Technical University, Vietnam)
11:20	<i>Swin Transformer Model for Weapon Detection</i>	Nguyen Thi Khanh Tram (Phenikaa University & Phenikaa University, Hanoi, Vietnam); Son Trung Doan (Phenikaa University, Vietnam); Anh Thai Vo (Can Tho University, Vietnam)
11:40	<i>UFCNet: U-Shaped Fully Connected Network for Improving Direction of Arrival Estimation Accuracy in Electronic Intelligence Systems</i>	Duy-Thai Nguyen (Military Institute of Science and Technology, Vietnam); Van-Phuc Hoang (Le Quy Don Technical University, Vietnam); Sang Van Doan (Vietnam Naval Academy, Vietnam)

Session 15: Electronics (2) Room: Lotus 4

Friday 20th Oct 2023, 10:20 – 12:00

Chair: Prof. Do Duc Phu (University of Science, VNU-HCM, Vietnam)

10:20	<i>Internet of Things Terminal with Embedded Machine Learning Capabilities for Terrestrial and Space Communication Experiments</i>	Van Lic Tran (The University of Da Nang - UDN, Vietnam); Fabien Ferrero (Université Cote d'Azur, CNRS, LEAT & CREMANT, France); Le Huy Trinh (University of Information and Technology & Vietnam National University, Vietnam); Thao Manh Nguyen (Université Côte d'Azur & LEAT, France); Laurent Yvon Rodriguez (University Cote d'Azur / LEAT / CNRS UMR 7248, France); Pierre Emmanuel Novac (Université Côte d'Azur, LEAT, CNRS, France); Benoit Miramond (University Cote d'Azur / LEAT / CNRS UMR 7248, France); Alain Pegatoquet (LEAT, France)
10:40	<i>A Low Loss X-Band Bandpass Substrate Integrated Waveguide Filter Using Complementary Split-Ring Resonators</i>	Linh Thuy Nguyen and Luong Duy Manh (Le Quy Don Technical University, Vietnam); Sang Huu Nguyen (Author, Vietnam)
11:00	<i>Wi-Fi Based Monitoring of Goat Feeding Behaviour Using Gyro- and Accelerometer Data</i>	Gerino P Mappatao (De La Salle University, Philippines)
11:20	<i>Research and Design a Low Power Electronic Shelf Label Based on E-Paper Display and LoRa Technology</i>	Xuan-Minh Le (University of Information Technology, Vietnam); Quoc-Son Tran (VNUHCM - University of Information Technology, Vietnam); Thuy-Tien Vu and Tuong-Vy Vo (University of Information Technology, Vietnam); Le Huy Trinh (University of Information and Technology & Vietnam National University, Vietnam); Fabien Ferrero (Université Cote d'Azur, CNRS, LEAT & CREMANT, France)

11:40	<i>A Photonic Crystal Fiber Based Gold-Coated Open Channel SPR Sensor for Low RI Detection</i>	Emranul Haque (Independent University, Bangladesh (IUB), Bangladesh); Abdullah Al Noman (Lamar University, USA); Debaleena D Gupta (Independent University Bangladesh, Bangladesh); Asif Mohammad Mithu (Lamar University, USA); Susmoy Kundu (Independent University Bangladesh, Bangladesh); Md. Anwar Hossain (Bangladesh University of Business and Technology, Bangladesh); Nguyen Hoang Hai (Hanoi University of Science and Technology, Vietnam); Feroz Ahmed (Independent University, Bangladesh)
12:00 – 12:20	<i>Built-In Camera-Based Visible Light Communication System with 95%-Efficiency LED Driver</i>	Huy Nguyen Quang , Hoa Nguyen Quynh , Duy The Vu and Nam Nguyen Hoang (Hanoi University of Science and Technology, Vietnam); Loan Pham-Nguyen (Hanoi University of Science and Technology & School of Electronics and Telecommunications, Vietnam)

Session 16: Network (3)

Room: Lotus 1

Friday 20th Oct 2023, 13:30 – 15:10

Chair: Prof. Nguyen Huu Nhat Minh (VKU)

13:30	<i>Intelligent Omni Surface-Assisted Cell-Free Massive MIMO System for 6G Wireless Network</i>	Apurba Adhikary , Avi Deb Raha , Yu Qiao , Girum Fitihamlak Ejigu , Sun Moo Kang , Eui-Nam Huh and Choong Seon Hong (Kyung Hee University, Korea (South))
13:50	<i>When Lyapunov Drift Meets DRL: Energy Efficient</i>	Dong Uk Kim (Kyung Hee & Networking Intelligence, Korea (South)); Ki Tae

	<i>Resource Allocation for IoT Data Collecting</i>	Kim, Sun Moo Kang , Seong-Bae Park and Choong Seon Hong (Kyung Hee University, Korea (South))
14:10	<i>Privacy-Preserving Continuous Learning for MobileSAM via Federated Learning</i>	Yoon Ji Su , Yu Min Park , Choong Seon Hong and Chaoning Zhang (Kyung Hee University, Korea (South))
14:30	<i>Boolean-Function-Based IP Lookup on FPGAs</i>	Dai-Do Tran and Hoang-Gia Vu (Le Quy Don Technical University, Vietnam)

Session 17: SIGNAL PROCESSING (4)

Room: Lotus 2

Friday 20th Oct 2023, 13:30 – 15:10

Chair: Prof. Do Van Long (Viettel High Technology Industries Corporation, Vietnam)

13:30	<i>Electrocardiography Anomaly Detection</i>	Hoang Quang Huy , Bach Xuan Tran , Nguyen Le Hieu , Vu Anh Tran and Viet Dung Nguyen (Hanoi University of Science and Technology, Vietnam)
13:50	<i>A Comparative Study of Machine Learning Algorithms for Breast Cancer Classification</i>	Hoang Quang Huy , Minh Le Duong , Luong Bui Phung Le , Vu Anh Tran and Viet Dung Nguyen (Hanoi University of Science and Technology, Vietnam); Nguyen Anh (Hanoi University of Technology, Vietnam)
14:10	<i>A Low-Complexity R-Peak Detection Based on Exponential Weight Mean-Variance for Wearable ECG Devices</i>	Duong Hoang Tien and Tan Ma Pham Nhut (University of Science VNU-HCM, Vietnam); Tran Hoang Nam (University of Science & University of Science VNU-HCM, Vietnam); Ta Viet Tai (VNUHCM-University of Science, Vietnam); Tran Thi Thao Nguyen (University of Science, VNU-HCM, Vietnam)

14:30	<i>Efficient ECG Classification with Light Weight Shuffle GhostNet Architecture</i>	Diem Thi Tran (University of Information Technology, VNU-HCM, Vietnam); Quoc Ngoc Tran (Academic, Vietnam)
14:50	<i>Electromyography Features Information Based on Functional Range of Motion (FROM) for Health Screening Program (HSP)</i>	Norhashimah Mohd Saad , Tengku Nor Shuhada Tengku Zawawi and Abdul Rahim Abdullah (Universiti Teknikal Malaysia Melaka, Malaysia); Rubita Sudirman (Universiti Teknologi Malaysia, Malaysia)

Session 18: Communications (4)

Room: Lotus 3

Friday 20th Oct 2023, 13:30 – 15:10

Chair: Prof. Ho Van Khuong (Ho Chi Minh City University of Technology, Vietnam)

13:30	<i>Proposing Hand Gesture Recognition System Using MediaPipe Holistic and LSTM</i>	Phat Huu Nguyen (Hanoi University of Science and Technology, Vietnam); Phuc Dinh Le Hong (Foreign Languages Specialized School, Vietnam); Dinh Dang Dang and Bao Vu Quoc (Hanoi University of Science and Technology, Vietnam); Chau Nguyen Le Bao (Hanoi-Amsterdam Highschool for the Gifted, Vietnam); Quang Tran Minh (Hochiminh City University of Technology, Vietnam)
13:50	<i>Is Visible Light Communications Suitable for Using in Lane-Changing Maneuvers?</i>	Aicha Meghraoui and Mohamed Larbi Tayebi (Telecommunications and Digital Signal Processing Laboratory (LTTNS) Djillali Liabes University Sidi-, Algeria); Mokhtar Besseghier (Mustapha Stambouli University of Mascara, Algeria & Telecommunications and Digital Signal Processing Laboratory, University of Sidi-Bel-Abbes, Algeria); Selma Yahia (University of Lille & Inria Lille- Nord Europe Lille, France); Hossien Eldeeb (Ozyegin University, Turkey); Vo Van (Duy Tan University, Vietnam); Tu Dac Ho (The Arctic University of Norway - UiT &

		Electrical Engineering, Norway)
14:10	<i>A Channel Estimation Method for Modified Walsh-Hadamard Code Division Multiplexing in Helicopter Satellite Communications and Its Application to Initial Acquisition</i>	Yuto Yoshinaka and Toshiharu Kojima (The University of Electro-Communications, Japan)
14:30	<i>SM-SVD-Based Video Transmission in MIMO Visible Light Communication</i>	Manh Le-Tran and Dinh Trieu Duong (Vietnam National University in Hanoi, Vietnam)
14:50	<i>Implementation of the Basic Transmit and Receive Functions of Automatic Identification Systems for Marine Vessels</i>	Gerino P Mappatao (De La Salle University, Philippines)

Session 19: SPECIAL SESSION (1)

Room: Lotus 4

Friday 20th Oct 2023, 13:30 – 15:10

Chair: Prof. Nguyen Tien Hoa (Hanoi University of Science and Technology, Vietnam)

13:30	<i>Energy Efficiency Optimization for Massive MIMO Network: A Neural Network-Based Approach</i>	Mai T. P. Le (Danang University of Science and Technology, Vietnam); Trung-Hieu Nguyen and Anh-Tu Nguyen (VNPT Corporation, Vietnam); Dong V. Vo (Central Power Corporation, Vietnam); Hieu V. Nguyen (Danang University
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		of Science and Technology, Vietnam)
13:50	<i>Improving the Reliability of Short Packet Communications in VLC Systems</i>	Son Ha- Xuan (University of Engineering and Technology, Vietnam); Trang Pham Thi Quynh (Ha Noi University of Industry, Vietnam); Manh Le-Tran (Vietnam National University in Hanoi, Vietnam); Trinh Anh Vu (Vietnam National University, Vietnam)
14:10	<i>STAR-RIS Aided Mobile Edge Computing Networks with Uplink NOMA Scheme</i>	Truong Van Truong , Dac-Binh Ha and Truong Vu (Duy Tan University, Vietnam); Au Hai Nguyen (Nguyen, Vietnam)
14:30	<i>A Scalable Recommendation System with Hybrid Similarity Matrix Using Accelerated Particle Swarm Optimization</i>	Tan Nghia Duong , Tien Dat Mai , Manh Hoang Tran , Truong Giang Do and Tuan Nghia Cao (Hanoi University of Science and Technology, Vietnam)
14:50	<i>Detect Level of Methanol in Alcohol Using Near-Infrared (NIR) Spectrometer Imaging</i>	Quoc T. Huynh (International University - VNU HCMC, Vietnam); Uyen Nguyen (International University, Vietnam); Huy Nguyen (International University - VNU HCMC, Vietnam)

Session 20.1: SPECIAL SESSION (2)

Room: Lotus 3

Friday 20th Oct 2023, 15:30 – 16:30

Chair: Mai T. P. Le (Danang University of Science and Technology, Vietnam)

15:30	<i>Continuous Sign Language Recognition Using MediaPipe</i>	Khang Bao Tran (International University, Vietnam); Uyen Nguyen (International University, Vietnam); Quoc T. Huynh (International University - VNU HCMC, Vietnam)
15:50	<i>Security-Reliability Tradeoff of Multi-Hop Secure Communication Networks Using Fountain Codes and RIS-Aided Cooperative Communication</i>	Vo Ta Ty (Telecommunications University, Vietnam); Tran Trung Duy (Posts and Telecommunications Institute of Technology, Vietnam); Lam Thanh Tu (Ton Duc Thang University, Vietnam); Tung T. Nguyen (Industrial University of Ho Chi Minh City, Vietnam); Dung Trinh (Ho Chi Minh City University of Technology, Vietnam); Tan Hanh (Posts and Telecommunications Institute of Technology, Vietnam)
16:10	<i>Chaos-Based Stream Cipher for Embedded Systems</i>	Do Quang Tran (Hanoi University of Science and Technology, Vietnam); Anh Van Ta (IVI Group, Vietnam); Nguyen Xuan Quyen and Ta Kim Hue (Hanoi University of Science and Technology, Vietnam)

Session 20.2: SPECIAL SESSION (3)

Room: Lotus 4

Friday 20th Oct 2023, 15:30 – 16:30

Chair: Prof. Nguyen Hoang Vu (UTE, UD, Vietnam)

15:30	<i>An Enhancement of Indoor Localization Using PCA-Aided LSTM Approach</i>	Hang Duong (Hanoi University of Industry, Vietnam); Vu Trinh (University of Engineering and Technology, Vietnam); Kha Manh Hoang (Hanoi University of Industry, Vietnam)
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15:50	<i>None-Radiative Method to Characterize Paper Substrates at mmWave</i>	Hong Quang Nguyen (Hanoi University of Science and Technology, Vietnam); Minh Thuy Le (School of Electrical & Electronic Engineering, Hanoi University of Science and Technology, Vietnam); Nhu Huan Nguyen (IMEP-LaHC Laboratory, France); Tan Phu Vuong (Grenoble INP-MINATEC, France)
16:10	<i>A Deep CNN Design for Secure Short-Packet Communications in WET IoT Networks with Multiple Eavesdroppers</i>	Toan-Van Nguyen (International University-VNU-HCM, Vietnam); Thien Huynh-The (Ho Chi Minh City University of Technology and Education, Vietnam); Nguyen Tien Hoa (Hanoi University of Science and Technology, Vietnam)

Time: 09h00 – 12h00

Place: VKU – Ball Hall, 470 Tran Dai Nghia street, Hoa Qui ward, Ngu Hanh Son district, Da Nang City

Day 3: October 21, 2023

WORKSHOP ON IC DESIGN

Room: Ball Hall

Chairman: Prof. Hoang Van Phuc (LQDTU)

09:00	<i>Invited Talk 1: Semiconductor Design Technology Trends</i>	Roh Yeachul, Vice President, The Electronics and Telecommunications Research Institute (ETRI), Korea Kim Jun Sung, Director, SoC Human Resource Development Section, Sudogkwon Research Center, ETRI, Korea
09:40	<i>Invited Talk 2: Semiconductor Industry Trends</i>	Park Jang Hyun, PMC expert, ETRI, Korea
10:00	Tea-break	

10:15	<i>Roundtable Discussion: The role of Vietnamese HE institutes in training and developing of human resource on the field of IC design and manufacturing in Vietnam</i>	IC experts Local authorities' representative Korean universities' representatives Vietnamese universities' representatives Companies and Enterprises representatives
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